# CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

**NABL** - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377


Job No.: CTCE/BBMP/W.No.04/JTG/CSR-7/892a/CUBE/2015-16 10.07.2015

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| * Customer | : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore. |
| * Agency | : **Mr. Jayanth T. Gowda** No. 152, 2nd Floor, 3rd Main, Basaveshwaranagara, Bangalore. |
| * Name of the work | : Construction of drains, culverts and concrete roads in 3rd Phase in Ward No. 04, BBMP, Bangalore. |
| Reference | : BBMP/AEE/YNTSD/46/2014-15 Dated: 09.03.2015 |
| * Sample ID | : Cement Concrete |
| Size of cubes | : 150mmx150mmx150mm |
| Cross Sectional Area | : 22500 $mm^2$ |
| Technical Reference | : IS: 516-1959 (Reaffirmed 2008) |
| * Grade of Concrete | : $M_{20}$ |
| Compressive Strength as on | : $28^{th}$ day |
| Sample Received on | : 10.07.2015 |

| Sl.No. | * Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 12.06.2015 | 10.07.2015 | 8.264 | 527.2 | 23.43 |
| 2 | 12.06.2015 | 10.07.2015 | 8.395 | 536.8 | 23.86 |
| 3 | 12.06.2015 | 10.07.2015 | 8.172 | 512.6 | 22.78 |

AE W-4

* Information is furnished by the Customer/Representative

Note:

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3. Any Query regarding the report must be reported within 30 days from the date of testing.

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Civil-Tech Consultants & Engineers Bangalore

VISHWANATH .C
Quality Manager


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Building & Highway Material Testing Laboratory

**NABL** - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377


Job No.: CTCE/BBMP/W.No.04/JTG/CSR-03/784b/CEMENT/2014-15 Date: 12.03.2015

## TEST REPORT ON CEMENT

| | | |
|---|---|---|
| * CUSTOMER | : | **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore. |
| *AGENCY | : | **Mr. Jayanth T. Gowda** No. 152, 2nd Floor, 3rd Main, Basaveshwaranagara, Bangalore. |
| *NAME OF THE WORK | : | Construction of drains, culverts and concrete roads in 3rd Phase in Ward No. 04, BBMP, Bangalore. |
| REFERENCE | : | BBMP/AEE/YNTSD/46/2014-15 Dated: 09.03.2015 |
| SAMPLE ID | : | Cement |
| SAMPLE RECEIVED ON | : | 09.03.2015 |
| PERIOD OF TESTING | : | 09.03.2015 to 12.03.2015 |

The results of the tests conducted on the cement sample are as follows:

| Sl. No | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 8112-2013 |
|---|---|---|---|---|
| 1 | Standard Consistency | IS-4031 (Part -4) 1988(RA-2009) | 28.00 % | - |
| 2 | a) Initial Setting Time | IS-4031 (Part -5) 1988(RA-2009) | 185 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part -5) 1988(RA-2009) | 465 Minutes | Not More than 600 Minutes |
| 3 | Soundness by Le Chartlier Method | IS-4031 (Part-3) 1988(RA-2009) | 1 mm | Not more than 10mm |

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**NABL** - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377


Job No.: CTCE/BBMP/W.No.04/JTG/CSR-03/784b/SAND-Gradation/2014-15 : 12.03.2015

## TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

| | |
|---|---|
| * Customer | : Asst. Executive Engineer, Yelahanka New Town Sub Division, BBMP, Bangalore. |
| * Agency | : Mr. Jayanth T. Gowda<br>No. 152, 2nd Floor, 3rd Main, Basaveshwaranagara, Bangalore. |
| * Name of Work | : Construction of drains, culverts and concrete roads in 3rd Phase in Ward No. 04, BBMP, Bangalore. |
| Reference | : BBMP/AEE/YNTSD/46/2014-15 Dated: 09.03.2015 |
| Technical Reference | : IS : 2386 Part 1 - 1963 RA-2007 |
| Sample ID | : Fine Aggregates |
| Sample Received on | : 09.03.2015 |
| Date of Testing | : 12.03.2015 |

Total Wt. of Aggregates in gms 1000

| Is Sieve Size in mm | Cumulative Weight Passing in % | Spec.Limits as per IS 383-1970 (RA- 2007) | | | |
|---|---|---|---|---|---|
| | | Zone-I | Zone-II | Zone-III | Zone-IV |
| 10 | 100 | 100 | 100 | 100 | 100 |
| 4.75 | 93.90 | 90-100 | 90-100 | 90-100 | 95-100 |
| 2.36 | 78.10 | 60-95 | 75-100 | 85-100 | 95-100 |
| 1.18 | 56.90 | 30-70 | 55-90 | 75-100 | 90-100 |
| 600 Micron | 37.10 | 15-34 | 35-59 | 60-79 | 80-100 |
| 300 Micron | 15.50 | 5-20 | 8-30 | 12-40 | 15-50 |
| 150 Micron | 3.80 | 0-10 | 0-10 | 0-10 | 0-15 |

* Information is furnished by the Customer/Representative

Remarks : This sample is under Zone-II specific limits.

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T-2377

Job No.: CTCE/BBMP/W.No.04/JTG/CSR-03/784b/AGG/GR/2014-15 : 12.03.2015

## TEST REPORT ON COARSE AGGREGATES

| | |
|---|---|
| * Customer | : Asst. Executive Engineer, Yelahanka New Town Sub Division, BBMP, Bangalore. |
| * Agency | : Mr. Jayanth T. Gowda<br>No. 152, 2nd Floor, 3rd Main, Basaveshwaranagara, Bangalore. |
| * Name of Work | : Construction of drains, culverts and concrete roads in 3rd Phase in Ward No. 04, BBMP, Bangalore. |
| Reference | : BBMP/AEE/YNTSD/46/2014-15 Dated: 09.03.2015 |
| Technical Reference | : IS : 2386 Part 1 -1963 RA-2007 |
| Sample ID | : Coarse Aggregates (40mm) |
| Sample Received on | : 09.03.2015 |
| Date of Testing | : 12.03.2015 |

Total Wt. of Aggregates in gms= 10000

| Is Sieve Size in mm | Cumulative Weight Passing in % | Spec.Limits as per IS 383-1970 (RA- 2007) | |
|---|---|---|---|
| | | Graded | Single Sized |
| 80 | 100 | 100 | - |
| 63 | 100 | - | 100 |
| 40 | 96.28 | 95-100 | 85-100 |
| 20 | 47.03 | 30-70 | 0-20 |
| 10 | 12.41 | 10-35 | 0-5 |
| 4.75 | 2.14 | 0-5 | - |

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits.

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# CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

**NABL** - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.04/JTG/ STEEL/2014-15 16.03.2015

## TEST REPORT ON REINFORCEMENT STEEL

| | | |
|---|---|---|
| Client | : | **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore. |
| Agency | : | **Mr. Jayanth T. Gowda** No. 152, 2nd Floor, 3rd Main, Basaveshwaranagara, Bangalore. |
| Name of the Work | : | Construction of drains, culverts and concrete roads in 3rd Phase in Ward No. 04, BBMP, Bangalore. |
| Reference | : | BBMP/AEE/YNTSD/46/2014-15 Dated: 09.03.2015 |
| Date of Test | : | 16.03.2015 |
| Technical Reference | : | IS: 1786-2008 |

| Sl. No | Nominal size (dia) (mm) | Mass per metre (Kg/mtr) | TENSILE STRENGTH | | | Bend Test | Rebend Test |
|---|---|---|---|---|---|---|---|
| | | | 0.20% proof stress/Yield stress N/mm$^2$ | Tensile strength (Ultimate stress) N/mm$^2$ | Elongation percent gauge length | | |
| 1 | 10 | 0.62 | 514 | 557 | 13.25 | O.K | O.K |

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**NABL** - Accredited Laboratory as per ISO / IEC-17025 : 2005


Job No.: CTCE/BBMP/W.No.04/JTG/ STEEL/2014-15 16.03.2015

## TEST REPORT ON REINFORCEMENT STEEL

| | | |
|---|---|---|
| Client | : | **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore. |
| Agency | : | **Mr. Jayanth T. Gowda** No. 152, 2nd Floor, 3rd Main, Basaveshwaranagara, Bangalore. |
| Name of the Work | : | Construction of drains, culverts and concrete roads in 3rd Phase in Ward No. 04, BBMP, Bangalore. |
| Reference | : | BBMP/AEE/YNTSD/46/2014-15 Dated: 09.03.2015 |
| Date of Test | : | 16.03.2015 |
| Technical Reference | : | IS: 1786-2008 |

| Sl. No | Nominal size (dia) (mm) | Mass per metre (Kg/mtr) | TENSILE STRENGTH | | | Bend Test | Rebend Test |
|---|---|---|---|---|---|---|---|
| | | | 0.20% proof stress/Yield stress $N/mm^2$ | Tensile strength (Ultimate stress) $N/mm^2$ | Elongation percent gauge length | | |
| 1 | 12 | 0.89 | 516 | 559 | 13.45 | O.K | O.K |

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T-2377

Job No.: CTCE/BBMP/W.No.04/JTG/CSR-03/780d/CUBE/2014-15

20.04.2015

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| * Customer | : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore. |
| * Agency | : **Mr. Jayanth T. Gowda**<br>No. 152, 2nd Floor, 3rd Main, Basaveshwaranagara, Bangalore. |
| * Name of the work | : Construction of drains, culverts and concrete roads in 3rd Phase in Ward No. 04, BBMP, Bangalore. |
| Reference | : BBMP/AEE/YNTSD/46/2014-15 Dated: 09.03.2015 |
| * Sample ID | : Cement Concrete |
| Size of cubes | : 150mmx150mmx150mm |
| Cross Sectional Area | : 22500 $mm^2$ |
| Technical Reference | : IS: 516-1959 (Reaffirmed 2008) |
| * Grade of Concrete | : $M_{20}$ |
| Compressive Strength as on | : $28^{th}$ day |
| Sample Received on | : 23.03.2015 |

| Sl.No. | * Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 23.03.2015 | 20.04.2015 | 8.215 | 471.8 | 20.97 |
| 2 | 23.03.2015 | 20.04.2015 | 8.326 | 494.6 | 21.98 |
| 3 | 23.03.2015 | 20.04.2015 | 8.418 | 483.5 | 21.49 |

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